

behavior is inherited, it would be inhuman to deprive large segments of the population of a chance to learn and to contribute to the creative pool of the community. There is still much to be learned about learning, but this important task may be frustrated unless we place this IQ in proper perspective with regard to overall achievement. Studies like Jensen's tend, by their selective and exaggerated emphasis on minor issues, to narrow public horizons and to foster social inertia or what has aptly been named "education for retardation."

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### Racial Alienation and Intelligence \*

To the Editors:

Arthur R. Jensen's article is a thoughtful review that should be read and discussed by a far larger audience than is likely to see it in the Winter issue of the *Harvard Educational Review*. It will be much talked about, but unfortunately only secondhand in response to several popular commentaries that have emphasized a few controversial (and I would say incautious) remarks at the expense of a great deal of Dr. Jensen's wisdom and scholarly reserve.

The meat of his discussion concerns the effort to bridge the IQ gap between the white and Negro communities in the United States. There can be no evasion of the raw statistics, which indicate, among other things, an average reading retardation of one to three years. The question is whether we can design educational programs to erase the painful statistics.

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Dr. Jensen is careful to insist that we focus on individual capability: genius is neither lacking among Negroes nor universal among whites. He does point out, wearily, that we cannot overlook the social demand for programs that concentrate on compensation for group handicaps.

His most provocative statement is his first sentence: "Compensatory education has been tried and it apparently has failed." Unfortunately such a remark may deter many proponents of the principle of compensatory education from reading the substance of his criticism. There is little doubt that many programs could not begin to meet the unrealistic expectations of their enthusiasts. In this sense, we could argue that every educational program has failed, and note that many brilliant men have achieved their successful place in life in spite of wholly inappropriate educational regimes. Many critics believe that compensatory education has hardly ever been tried, and within our present social framework it may be impossible to implement with the rigor needed to achieve prompt returns. Compensatory education programs are experiments, and we will never find out the ingredients of practical success unless we apply the kind of harsh criticism of actual results (rather than reliance on prior hopes) that Dr. Jensen demands and illustrates.

Unfortunately, Dr. Jensen says almost nothing about the brutal fact that is, in my view, the central issue in the educational gap—the increasingly bitter alienation of the races; the growing divergence of cultural loyalties. Taking this into account, I would have to say that "intelligence" undoubtedly does have a very large and relatively simple genetic component. In fact, the genes are all too visible: they control the color of the skin. In our present milieu, these genes may lead a student with the highest intellectual potential to turn his back on the hard work of learning physics, chemistry, and mathematics (which will measure out as intelligence by middle-class standards) in favor of black studies that he hopes may meet his more urgent needs in other spheres.

The same principle must operate right back to birth, and before. At the moment we have neither the means to measure its influence on, say, reading skills, nor to know how to cancel it, nor even whether we should try.

Jensen's remarks on the heritability of intelligence have misled some commentators. Much of his paper is an informative restatement of the allocation of heredity versus environment as sources of variation in intelligence within white cultures. He concludes (and I agree) that environmental differences in the groups so far studied account for less than half the variability, which is to say that the genes account for more. I would stress both the complexities of such a judgment and the difficulty of separating genes from prenatal environment and disentan-

gling specific interactions of genes and later environments. For the sake of hypothesis, we could imagine that there are different genes that condition how easily a child can learn pictograms on the one hand, or alphabetic syllables on the other. If so, it will be quite important for the actual intelligence of a particular child whether he happens to be reared in Japan or in Sweden, though each country has an excellent educational system.

Jensen correctly criticizes the exaggerated environmentalist bent of many psychologists and educationists who tend to minimize such information. He also cautions that "all the major heritability studies reported in the literature are based on samples of white European and North American populations, and our knowledge of the heritability of intelligence in different racial and cultural groups within these populations is nil. For example, no adequate heritability studies have been based on samples of the Negro population of the United States."

At this point, Jensen favors the hypothesis that genetic factors play as large a role in the difference *between* racial groups as they do *within*. This position will be difficult to confirm or refute by any experiments that I can foresee as realistically possible in the face of existing cultural alienation. Large segments of either community refuse to be color blind. How then can we discuss experiments like adoption of black children into white families, with any realistic expectation of their answering such subtle questions as the genetic basis of the development of the brain?

Jensen and I part company on the issue of the impact of racial alienation on intellectual development. I believe this alienation is quite sufficient to account for the statistical observations without the need for speculation about other genetic factors. Jensen fails to see enough difference in early environments of children he believes to be in comparable economic strata, to account for later school difficulties. I must point out that "comparable" groups have never been standardized even for simple physical health or for nutrition during pregnancy. Jensen's genetic hypothesis is scarcely a new one; it can be traced with little change back to Plato at least.

But it remains just a hypothesis, and we are not much better equipped than Plato was to assess it. This situation will not prevail many more generations, for we are beginning to learn the specifics of the biology, including the genetics, of the growth of the brain. By the time we have the biochemical and neurobiological tools to assay objectively a child's genetic potential for intelligence, it may be a moot point, for we will know enough to provide specific remedies for most of the specific defects that we can so identify.

The genetic hypothesis is almost irrelevant to Jensen's most cogent point. Our educational systems often neglect a child's strongest capabilities and hold him back, while focusing on his weaknesses. He reports very encouraging results in teaching deprived children how to read by rote learning, leaving more complicated abstractions to a later stage of their schooling. If the 6-year-old has a deficit in abstract thinking, it is relatively unimportant for educational policy whether this is the fault of his genes or a cultural maladaptation. In many situations, a genetic defect might be easier to repair: certainly we are better equipped to deal with diabetes or deafness than with overt racial hostility.

The social crime would be to characterize a child by his color rather than by his individually tested capabilities, and Jensen may be doing a great service by insisting on this kind of differentiation.

The genetic hypothesis does matter if it discourages educators and scientists from probing more deeply into the crucial early years of child development. The period from one to three years of age is, in fact, almost a blank page of scientific observation although it is the crucial period of socialization and language development. This is no accident: children of that age are hidden in the bosom of their families; in many states it is even legally forbidden to establish "schools" for them, on the theory that maternal deprivation would be fatal to their proper development. The most crucial level in compensatory education may be an effort to reach and teach the mothers of these young children. Teach what? We have no scientific guidelines yet, and there are pitifully few programs along these lines.

For this interval of life, physical factors of development must not be overlooked: we will return time and again to malnutrition—not overt hunger, but dietary imbalance, whose importance Jensen has not overlooked, though he fails to incorporate it in his general outlook:

At least one study shows that some undetermined proportion of the urban population in the United States might benefit substantially with respect to intellectual development by improved nutrition. In New York City, women of low socio-economic status were given vitamin and mineral supplements during pregnancy. These women gave birth to children who, at 4 years of age, averaged eight points higher in IQ than a control group of children whose mothers have been given placebos during pregnancy.

With effects like that, why are we discussing anything else?

We must consider many other deficiencies of the urban environment, many of them poorly defined but remediable with ordinary medical care. An astonishing number of kids from old slums still turn up with classical lead poisoning brain

damage from eating flakes of ancient paint. We do not ease their problem with lead and carbon monoxide fumes from auto exhausts.

Finally, some specific genes are related to diseases known to be more prevalent among Negroes. Sickle cell trait in Africa is a defense against death from malaria, which balances the impact of the much rarer full-blown disease, sickle cell anemia. About 8 per cent of American Negroes are genetic carriers of this trait (discovered by a Negro medical student who examined his own blood). These genetic carriers are not anemic or otherwise clinically ill. Nevertheless, we need and do not have the kinds of studies that would show subtler effects on the carrier individual under stress. For example, we do not know whether carrier children are more or less intelligent than their normal siblings. When we have studies like these, which, needless to say, will involve various genes distributed among all the races, we can claim to have made some tangible headway on the genetics of intelligence.

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## A Black Neuropsychiatrist Responds

To the Editors:

In the article, "How Much Can We Boost IQ and Scholastic Achievement?" the adverbial phrase "In the Negro" was omitted—but that was what it really was all about. The main argument that Dr. Jensen is attempting to present is simply: "Negroes are born stupid; it's genetic; there's nothing you can do about it." As I reviewed this elaborate assortment of truths, half-truths, falsehoods, exaggerations, faulty deductions, and speculations, I experienced mixed emotions—including a generous portion of hostility. Many questions raced through my mind.

Can the intellectuals give us the answers to the Negro's problems? We see one group rushing in to set up one set of criteria and procedure based on its intellectual expeditions into outer space. Before the ink on its manual is dry, another group rushes in, changing criteria, procedure, and philosophy, in accordance with its own harebrained schemes. In the meantime, the disadvantaged Negro finds himself bounced about like a ping-pong ball.

Can science continue to remain pure and free in spite of the new tremendous involvement of government? We must remember that Dr. Jensen is hired by the University of California at Berkeley where rebellious, disorderly, and disrup-